

AMENDMENTS TO THE TITLE:

Kindly amend the title as follows.

~~THERMAL TYPE MASS FLOW RATE SENSOR MADE OF A~~ CORROSION
RESISTANT METAL, ~~AND FLUID SUPPLY EQUIPMENT USING THE SAME~~ MADE
THERMAL TYPE MASS FLOW RATE SENSOR AND A FLUID SUPPLY DEVICE
USING THE SAME

AMENDMENTS TO THE SPECIFICATION:

Kindly amend the specification as follows.

1. **Page 1**, immediately beneath the title, please insert the following new paragraph:

This is a National Phase Application in the United States of International Patent Application No. PCT/JP2004/001519 filed February 12, 2004, which claims priority on Japanese Patent Application No. 2003-112090, filed April 16, 2003. The entire disclosures of the above patent applications are hereby incorporated by reference.

2. Please replace the paragraphs beginning on page 5, line 8, to page 6, line 16, which begin with "The present invention..." with the following new paragraphs:

The present invention has been created based on the afore-mentioned idea and the results on various tests. The present invention, in accordance with a first embodiment, as ~~claimed in Claim 1~~ is fundamentally so constituted that it is equipped with a sensor part 1 comprising a corrosion resistant metal substrate 2 and a thin film F forming a temperature sensor 3 and a heater 4 mounted on the rear face side of the fluid contacting surface of the said corrosion resistant metal substrate 2.

The present invention in accordance with a second embodiment, which is a modification of the first embodiment, ~~as claimed in Claim 2 according to Claim 1~~ is so made that a sensor base 13 equipped with a sensor part 1, a fluid inlet to make fluids flow in, a fluid outlet to make fluids flow out, and a body 21 equipped with a fluid passage for communication between the fluid inlet and a fluid outlet are connected, and a strain applied to the said sensor part 1 when fastening a metal gasket 27 is suppressed by relatively raising

stiffness of the material immediately thereupon against the said metal gasket 27 to secure hermeticity.

The present invention in accordance with a third embodiment, which is a modification of the first embodiment or the second embodiment, as claimed in Claim 3 according to Claim 1 or
~~Claim 2~~ is so made that a corrosion resistant metal substrate 2 is formed with thickness of less than 150 μ m.

The present invention in accordance with a fourth embodiment, which is a modification of the first embodiment or the second embodiment, as claimed in Claim 4
~~according to Claim 1 or Claim 3~~ is so made that a sensor base 13 equipped with a sensor part 1 installed to secure hermeticity and a corrosion resistant metal substrate 2 are fastened hermetically by welding.

The present invention in accordance with a fifth embodiment, which is a modification of the first embodiment, the second embodiment, the third embodiment or the fourth embodiment, as claimed in Claim 5 according to Claim 1, Claim 2, Claim 3 or Claim 4 is so made that a thin film F is constituted with an insulation film 5 formed on the rear face of the fluid contacting face of the corrosion resistant metal substrate 2, a metal film M to form a temperature sensor 3 and a heater 4 formed thereupon, a protection film 6 to cover the insulation film 5 and the metal film M.

The present invention in accordance with a sixth embodiment, as claimed in Claim 6 is so made that a corrosion resistant metal made thermal type mass flow rate sensor of one or more of the first embodiment, the second embodiment, the third embodiment, the fourth embodiment and the fifth embodiment, claimed in either one or more of Claims 1-5 inclusive,
is mounted on a fluid controller, to check the flow rate appropriately when fluids are controlled.